AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/578,407

Attorney Docket No.: Q94567

AMENDMENTS TO THE SPECIFICATION

On page 1, before the 1st paragraph, beginning with "This invention relates to...", please insert the following:

BACKGROUND OF THE INVENTION

Field of the Invention

On page 1, before the 2nd paragraph, beginning with "Fluid product dispensing pumps are...", please insert the following:

Description of Related Art

On page 2, before the 1st full paragraph (beginning at line 14), beginning with "The purpose of the invention is...", please insert the following:

BRIEF SUMMARY OF CERTAIN EMBODIMENTS OF THE INVENTION

On page 5, before the 5th full paragraph (beginning at line 14), beginning with "Other characteristics and advantages...", please insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 5, before the paragraph bridging pages 5-6, beginning with "With reference to the Figures...", please insert the following:

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS OF THE INVENTION

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Please amend the paragraph bridging page 5 (beginning at line 30) and page

6 (ending at line 25) as follows:

With reference to the Figures, the dispensing pump according to the invention

comprises a pump body 10 in which a first piston 72 is free to slide. This first piston 30

72 partly defines a pump chamber 20 and actuation of the pump dispenses a product dose

contained in the pump chamber 20 through a dispensing orifice 45, preferably formed in

a dispensing head 40. The pump comprises a closer 38 arranged directly upstream of the

dispensing orifice 45, and cooperating with it by being displaceable and / or deformable

between a closed position of the dispensing orifice 45 and an open position of this

dispensing orifice. The pump chamber comprises an inlet valve 70 that can be made in

the form of a ball 75 forming a valve element and cooperating with a valve seat 71. The

pump body 10 is preferably formed in a single piece with the closer 38 inside the body.

Advantageously, the piston 72 and the valve seat 71 are fixed to a part that includes an

attachment ring 15 adapted to fix the pump on a reservoir 60 containing the fluid product,

advantageously with provision of a seal 65. A dip tube 18, designed to extend as far as

the bottom of the reservoir 60 to dispense the entire product contained in it, may also be

made in a single piece with the said part forming the attachment ring 15, piston 72 and

the valve seat 71. The valve element 75 is shown in the form of a ball, but it could be

made differently.

Please amend the paragraph bridging page 6 (beginning at line 26) and page

7 (ending at line 28) as follows:

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A bypass passage 74 is provided between the dip tube 18 and the pump chamber 20 upstream of the inlet valve 70. This bypass passage 74 connects the pump chamber 20 to the dip tube 18 when the pump is primed. In particular, this bypass passage 74 may be made in the form of a lateral hole formed in the valve seat 71 upstream of the valve element 75. The valve seat 71 is then advantageously arranged upstream of the first leaktight piston 72 that slides inside the said pump body, the pump body being provided with an opening 32 that will cooperate with the said first piston 72 during priming. This priming position is shown particularly in Figure 2. It is found that when the user actuates the pump for the first time, and if there is any air in the pump chamber 20, the air is compressed which closes the inlet valve 70 by pressing the ball 75 in contact with the valve seat 71, since air is compressible, the first piston 72 can slide in the pump body 10 without the closer 38 moving with respect to the dispensing head 40. When the first piston 72 reaches the opening 32 of the pump body 10, a passage is created between the pump chamber 20 and the bypass passage 74, which expels air contained in the pump chamber 20 towards the dip tube 18 and therefore into the reservoir 60 as shown by arrows A and B in Figure 2. After priming, when the pump returns to its rest position, fluid product is drawn inside the pump chamber 20 and subsequently the first piston 72 can no longer reach the said opening 32 in the pump body 30-10 during normal operation of the pump, in other words when product is being dispensed, but only at the end of the actuation. The said inlet valve 70 then operates in the conventional manner and closes during actuation and opens when the pump returns to its rest position.